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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/092,781

03/07/2002

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8698

7590

08/09/2004

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EXAMINER

BENENSON, BORIS

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/092,781	Applicant(s) TAKASUGI ET AL.	
	Examiner Boris Benenson	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4, 6-14, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) 5, 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/22/02</u> | 6) <input type="checkbox"/> Other: _____ |

Detailed Actions

Claim Objections

1. Claims 2-5 and 12-15 are objected to because of the following informalities: Claim language require "deformed electricity carrying portion" which is indefinite, because the word deformed according to Merriam-Webster's means to become misshapen. It appears to examiner that "electricity-carrying portion" was designed to be in such particular form. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A language of the Claim "a heat responsive bimetal member positioned directly adjacent said

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movable electrode which moves from a first position to a second position upon being heated" is indefinite because it may be interpreted as if the movable element not the heat responsive bimetal member is being heated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6-14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton Jr. et al. (3,944,870) in view of Nezuka et al. (4,894,634). Sutton Jr. et al. disclose a Degaussing Circuit For Color Television Receivers. As a part of the circuit Sutton Jr. et al. discloses a thermally responsive relay (Fig. 7, Pos.20) that shown in details on Figures 1-6. The relay comprises a fixed electrode (Fig. 6, Pos. 50) with a fixed contact (58) mounted thereon and a movable electrode (68) that has a movable contact (76) mounted thereon.

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The movable contact is positioned to be able to make and to break contact with the fixed contact. A heat responsive bimetal member (86) positioned adjacent to the movable electrode. The bimetal member upon being heated moves the movable electrode from a first position to a second position therefore connecting-disconnecting the fixed contact and the movable contact. An insulator (62) insulates the movable electrode and the bimetal member from the fixed element. An attachment member - a rivet (Fig.4, Pos.134) inserted into the insulator securely fixes the movable electrode and the bimetal member together allowing no relative movement between the movable electrode and the bimetal member at an attachment point. Sutton Jr. et al. did not disclose the movable element and the bimetal member being positioned directly adjacent to each other. Nezuka et al. teach a Switch Device wherein a movable contact support plate (Fig.2, Pos. 3) read on a movable element and a bimetal strip disk (7), read on a bimetal member, are directly adjacent. The switching device is cased in a housing (2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the thermally responsive relay of Sutton Jr. et al. and locate the movable element and the bimetal directly adjacent as teaches Nezuka, because it will save a space and eliminate a link (Fig.6, Pos 106) of Sutton.

Referring to Claim 2 and 12, the thermally responsive relay Sutton Jr. et al. includes a deformed fixed contact having an opening for receiving the attachment element. It is designer's choice to provide sufficient size of elements to carry desired electric current without overheating and use insulating elements that prevent electrical shorting.

Referring to Claims 3,4,13 and 14, fixed electrode (50) of Sutton Jr. et al. has a curved (rounded) cylindrical wall with a central opening.

Referring to Claim 6, Nezuka et al. teach a fastener (Fig.2, pos. 11) that aligned with insulator (14) to sandwich the movable element and the bimetal between them.

Referring to Claims 7-9 and 16-17, Sutton Jr. et al. use a rivet (Fig.4, Pos.134) as an attachment member. All the elements are having an aligned through hole for receipt the rivet to securely fix them together at the attachment point. Use of a rivet with a hollow tubular body open in one end is well known.

Referring to Claim 10-11, Nezuka et al. teach a housing (2) read on casing that house the fixed electrode, the movable electrode, the bimetal member, the insulator and the attachment member.

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Allowable Subject Matter

4. Claims 5 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5 and 15 are allowable because none of the prior art of record disclose a protective device wherein a fixed electrode and an insulator are formed integrally together with the insulator having a through hole adapted for receipt of an attachment member in combination with the other claim limitations.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Benenson whose telephone number is (571) 272-2048. The examiner can normally be reached on M-F (8:20-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2800 x 36. The fax phone number for the

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organization where this application or proceeding is assigned is
(703) 872-9306.

Any inquiry of a general nature or relating to the status
of this application or proceeding should be directed to the
receptionist whose telephone number is (703) 308-0956.

Boris Benenson
Examiner
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B.B.

A handwritten signature in black ink, appearing to read 'B. Sircus', with a stylized flourish at the end.

BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800